CASE NO.: AM9-98-080C
Serial No.: 09/551,745
June 30, 2003
Page 5

PATENT
Filed: April 18, 2000
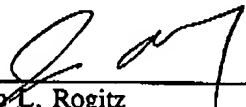
Remarks

Reconsideration of the above-captioned application is respectfully requested. Claims 1, 3, 4, 6-11, 13, 14, 16-18, and 20-22) have been rejected as being anticipated by Harney (USPN 5,522,080), and Claims 5 and 12 have been indicated as being allowable.

Harney, Figure 2 has been used as a teaching of priorities that include time-based deadlines. This is incorrect. As taught by Harney, Figure 2 simply shows the "prior art" processing thread for satisfying read and write requests, without any mention of priorities at all, much less ones that include time-based deadlines. The priorities taught by Harney are bandwidth-based, not time-based. The rejection has been overcome.

The examiner is cordially invited to telephone the undersigned for any reason that would advance the present application to allowance.

Respectfully submitted,

John L. Rogitz
Registration No. 33,549
Attorney of Record
750 B Street, Suite 3120
San Diego, CA 92101
Telephone: (619) 338-8075

JLR:jg

1053-32C.AM1

CASE NO.: AM9-98-080C
Serial No.: 09/551,745
June 30, 2003
Page 6

<div align="right">
PATENT
Filed: April 18, 2000
</div>

VERSION WITH MARKINGS TO SHOW CHANGES

1. (amended) A computer system including plural client nodes communicating data access requests to one or more storage nodes, comprising:

logic means for associating one or more of the data access requests with respective priorities, wherein the priorities include time-based deadlines;

logic means for sending the data access requests and priorities to the storage nodes; and

logic means for ordering the data access requests at the storage nodes based on the respective priorities, such that the data access requests are satisfied in consideration of their respective priorities.

Cancel Claim 7 and amend Claim 8 as follows:

8. (amended) In a computer system having plural processors communicating data access requests to a shared storage system, a computer-implemented method for satisfying at least two contemporaneous data access requests to a single data storage device of the shared storage system, comprising the steps of:

responding to the requests in an order defined at least in part by one or more considerations external to the data storage device, wherein the one or more considerations external to the data storage device include a data request priority including a time-based deadline.

11. (amended) The method of Claim [10]8, further comprising:

associating one or more of the data access requests with respective priorities;

sending the data access requests and priorities to storage nodes in the shared storage system, each storage node including at least one data storage device; and

ordering the data access requests at the storage nodes based on the respective priorities, such that the data access requests are satisfied in accordance with their respective priorities.

13. (amended) The method of Claim [10]8, further comprising:

terminating at least one data access request, prior to the request being satisfied by a storage node.

14. (amended) The method of Claim [10]8, further comprising loosely synchronizing the computing and storage nodes with each other.

15. (amended) The method of Claim [10]8, wherein each storage node includes at least one storage computer and at least one data storage device, and the storage computer sends no more than one data access request at a time to the data storage device, such that the data storage device cannot reorder the sequence of responding to data access requests based on considerations internal to the data storage device.

17. (amended) A computer program device comprising:

a computer program storage device readable by a digital processing apparatus; and

1053-32C.AM1

a program means on the program storage device and including instructions executable by the digital processing apparatus for performing method steps for satisfying one or more data access requests, the method steps comprising:

associating at least some of the data access requests with respective priorities, at least some of which are time-based; and

sending the priorities and the data access requests to a shared storage system, such that the shared storage system can respond to the requests in consideration of the priorities.

22. (amended) A computer program device comprising:

a computer program storage device readable by a digital processing apparatus; and

a program means on the program storage device and including instructions executable by the digital processing apparatus for performing method steps for satisfying one or more data access requests, the method steps comprising:

responding, with a memory system, to at least some of the data access requests based on respective priorities, the priorities and the data access requests being sent to the memory system, wherein at least some priorities are time-based.

1093-32C.AM1